What is claimed is:

1. A recombinant polynucleotide comprising a nucleotide sequence that hybridizes to SEQ ID NO: 11 or the complement of SEQ ID NO: 11 under stringent conditions that include two wash steps of 6x SSC and 65° C for 10-30 minutes per step.

2. The recombinant polynucleotide of Claim 1, wherein the recombinant polynucleotide is operably linked to at least one regulatory element being effective in controlling expression of the recombinant polynucleotide when the recombinant polynucleotide is transformed into a plant.

3. The recombinant polynucleotide of Claim 1, wherein the recombinant polynucleotide is incorporated into an expression vector.

4. The recombinant polynucleotide of Claim 3, wherein the recombinant polynucleotide is incorporated into a cultured host cell.

5. The recombinant polynucleotide of Claim 1, wherein the recombinant polynucleotide encodes a polypeptide comprising the AP2 domain of SEQ ID NO: 12.

6. The recombinant polynucleotide of Claim 1, wherein the recombinant polynucleotide encodes a polypeptide comprising SEQ ID NO: 12.

7. The recombinant polynucleotide of Claim 1, wherein said recombinant polynucleotide comprises SEQ ID NO: 11.

8. A transgenic plant comprising the recombinant polynucleotide of claim 1.

9. Seed produced from the transgenic plant claim 8.

10. A recombinant polynucleotide comprising a nucleotide sequence that hybridizes to the nucleotide bases 53 to 256 of SEQ ID NO:11 or the complement of nucleotide bases 53 to 256 of SEQ ID NO: 11 under stringent conditions that include two wash steps of 6x SSC and 65° C for 10-30 minutes per step.

11. A transgenic plant comprising the recombinant polynucleotide of claim 10.

12. Seed produced from the transgenic plant claim 11.

13. A transgenic plant comprising a recombinant polynucleotide encoding a polypeptide;

wherein the polypeptide has the property of regulating abiotic stress tolerance in a plant when the polypeptide is overexpressed wherein the recombinant polynucleotide a nucleotide sequence selected from the group consisting of:

(a) SEQ ID NO: 2N-1, where N=1-210;

(b) a nucleic acid sequence that hybridizes to the nucleotide sequence or the complement of the nucleotide sequence of (a) under stringent conditions that include two wash steps of 6x SSC and 65° C, for 10-30 minutes per step; and

(c) a nucleic acid sequence that is substantially identical to the nucleotide sequence of (a).

14. A transgenic plant comprising a recombinant polynucleotide encoding a polypeptide having an AP2 domain, wherein the polypeptide has the property of SEQ ID NO: 12 of regulating abiotic stress tolerance in a plant when the polypeptide is overexpressed, wherein:

the AP2 domain is sufficiently homologous to the AP2 domain of SEQ ID NO: 12 that the polypeptide binds to a transcription-regulating region of DNA.

15. The transgenic plant of Claim 14, wherein the recombinant polynucleotide has a nucleotide sequence that hybridizes to SEQ ID NO:11 or to the complement of SEQ ID NO 11 under stringent conditions that include two wash steps of 6x SSC and 65° C of 10-30 minutes per step.

16. The transgenic plant of Claim 14, wherein the recombinant polynucleotide has a nucleotide sequence that hybridizes to the complement of nucleotide bases 53-256 of SEQ ID NO 11 under stringent conditions that include two wash steps of 6x SSC and 65° C of 10-30 minutes per step.

17. The transgenic plant of Claim 14, wherein the recombinant polynucleotide comprises SEQ ID NO: 11.

18. The transgenic plant of Claim 14, wherein the polypeptide comprises SEQ ID NO: 12.

19. The transgenic plant of Claim 14, wherein the transgenic plant is selected from the group consisting of: soybean, wheat, corn, potato, cotton, rice, oilseed rape, sunflower, alfalfa, clover, sugarcane, turf, banana, blackberry, blueberry, strawberry, raspberry, cantaloupe, carrot, cauliflower, coffee, cucumber, eggplant, grapes, honeydew, lettuce, mango, melon, onion, papaya, peas, peppers, pineapple, pumpkin, spinach, squash, sweet corn, tobacco, tomato, watermelon, mint and other labiates, citrus, fruit trees, rosaceous fruits, and brassicas.

20. The transgenic plant of Claim 14, wherein the recombinant polynucleotide comprises a constitutive, inducible, or tissue-specific promoter that is operably linked to a region of the recombinant polynucleotide that encodes the polypeptide.

21. The transgenic plant of Claim 14, wherein the polypeptide is selected from the group consisting of SEQ ID NOs: 2, 12, 88, 90, 92, 94, 96, 98, and 100.

22. Seed produced from the transgenic plant of Claim 14.

23. A transgenic plant that overexpresses a recombinant polynucleotide comprising a nucleotide sequence that hybridizes to SEQ ID NO:11 or the complement of SEQ ID NO 11 under stringent conditions including two wash steps of 6x SSC and 65° C for 10-30 minutes per step;

wherein said transgenic plant has increased abiotic stress tolerance as compared to a non-transformed plant that does not overexpress a polypeptide encoded by the recombinant polynucleotide.

24. The transgenic plant of Claim 23, wherein said abiotic stress tolerance is selected from the group consisting of tolerance to drought, tolerance to chilling, germination in cold conditions, and tolerance to low nitrogen.

25. A method for producing a transgenic plant having increased tolerance to abiotic stress, the method steps comprising:

(a) providing an expression vector comprising a nucleotide sequence that hybridizes to the complement of SEQ ID NO 11 under stringent conditions that include two wash steps of 6x SSC and 65° C, each step being 10-30 minutes in duration;

(b) introducing the expression vector into a plant cell;

(c) growing the plant cell into a plant, and allowing the plant to overexpress a polypeptide encoded by the nucleotide sequence, said polypeptide having the property of increasing abiotic stress tolerance in the transgenic plant as compared to a non-transformed plant that does not overexpress the polypeptide;

(d) identifying an abiotic stress tolerant plant so produced with increased abiotic stress tolerance by comparing the transgenic plant with one or more non-transformed plants that do not overexpress the polypeptide; and

(e) selecting said abiotic stress tolerant plant with increased abiotic stress tolerance.

26. The method of Claim 25, the method steps further comprising:

(e) selfing or crossing said abiotic stress tolerant plant with itself or another plant, respectively, to produce seed; and

(f) growing a progeny plant from the seed, wherein said progeny plant has increased tolerance to the abiotic stress.

27. The method of Claim 26, wherein:

said progeny plant expresses mRNA that encodes a DNA-binding protein having an AP2 domain that binds to a DNA molecule, regulates expression of said DNA molecule, which induces the overexpression of the polypeptide; and

said mRNA is expressed in the progeny plant at a level greater than a non-transformed plant that does not overexpress said DNA-binding protein.

28. The method of Claim 25, wherein the abiotic stress tolerance is selected from the group consisting of tolerance to drought, tolerance to chilling, germination in cold conditions, and tolerance to low nitrogen.

29. The method of Claim 25, wherein the transgenic plant is produced from a plant selected from the group consisting of: soybean, wheat, corn, potato, cotton, rice, oilseed rape, sunflower, alfalfa, clover, sugarcane, turf, banana, blackberry, blueberry, strawberry, raspberry, cantaloupe, carrot, cauliflower, coffee, cucumber, eggplant, grapes, honeydew, lettuce, mango, melon, onion, papaya, peas, peppers, pineapple, pumpkin, spinach, squash, sweet corn, tobacco, tomato, watermelon, mint and other labiates, citrus, fruit trees, rosaceous fruits, and brassicas.

30. A method for increasing a plant's tolerance to abiotic stress, said method comprising:

(a) providing a vector comprising:

(i) a polynucleotide sequence, wherein the polynucleotide sequence encodes a polypeptide having an AP2 domain, and the polypeptide has the property of SEQ ID NO:12 of regulating abiotic stress tolerance in a plant; and

(ii) regulatory elements flanking the polynucleotide sequence, said regulatory elements being effective to control expression of said polynucleotide sequence; and

(b) transforming a target plant with said vector to generate a transformed plant with increased tolerance to abiotic stress as compared to a control plant that does not overexpress the polypeptide.

31. The method of Claim 30, wherein the polynucleotide comprises a nucleotide sequence that hybridizes to SEQ ID NO: 11 or the complement of SEQ ID NO: 11 under stringent conditions of two wash steps of 6X SSC and 65° C per step.

32. The method of Claim 30, wherein said polynucleotide comprises SEQ ID NO: 11; or a nucleotide sequence that encodes SEQ ID NO: 12.

33. The method of Claim 30, wherein said abiotic stress tolerance is selected from the group consisting of tolerance to drought, tolerance to chilling, germination in cold conditions, and tolerance to low nitrogen.

34. A method for increasing a plant's tolerance to drought stress, the method comprising:

(a) providing a vector comprising:

(i) a polynucleotide sequence, wherein the polynucleotide sequence encodes SEQ ID NO 12; and

(ii) regulatory elements flanking the polynucleotide sequence, said regulatory elements being effective to control expression of said polynucleotide sequence; and

(b) transforming a target plant with the vector to generate a transformed plant with increased tolerance to drought stress as compared to a control plant that does not overexpress SEQ ID NO 12.